Table 2.3–1. Summary Comparison of Potential Environmental Effects of Alternatives.

Resource	Western Corridor (TEP's Preferred Alternative)	Central Corridor	Crossover Corridor	No Action Alternative
Land Use				No impacts to existing land use. Current land use trends would continue. Residential and commercial developments would continue to be concentrated along Interstate 19 with some residences located in more remote areas that primarily contain ranches and undeveloped land.
Length	Estimated 65.7 mi (106 km)	Estimated 57.1 mi (91.9 km)	Estimated 65.2 mi (105 km)	
Length on CNF	Estimated 29.5 mi (47.5 km)	Estimated 15.1 mi (24.3 km)	Estimated 29.3 mi (47.2 km)	
Length on BLM	Estimated 1.25 mi (2.01 km)	Estimated 1.25 mi (2.01 km)	Estimated 1.25 mi (2.01 km)	
	Note that the Western and Crossover Corridors are identical outside of the Coronado National Forest (CNF).		Note that the Western and Crossover Corridors are identical outside of the CNF.	
Corridor length that follows or crosses the El Paso Natural Gas Company (EPNG) pipeline	Estimated 9.3 mi (15 km)	Estimated 43 mi (69 km)	Estimated 17 mi (27 km)	
Number of support structures (poles and towers):				
Total	Estimated 429	Estimated 373	Estimated 431	
On CNF	Estimated 191	Estimated 102	Estimated 196	
On BLM	Estimated 8	Estimated 8	Estimated 8	
Permanent area occupied by transmission line structures:				
Total	0.25 acres (0.10 ha)	0.21 acres (0.08 ha)	0.25 acres (0.10 ha)	
On CNF	0.11 acres (0.04 ha)	0.06 acres (0.02 ha)	0.11 acres (0.04 ha)	
On BLM	0.005 acres. (0.002 ha)	0.005 acres (0.002 ha)	0.005 acres (0.002 ha)	
Permanent area occupied by substations and fiber-optic regeneration station	19.8 acres (8 ha)	19.8 acres (8 ha)	19.8 acres (8 ha)	

(continues)

Table 2.3–1. Summary Comparison of Potential Environmental Effects of Alternatives *(continued).*

Resource	Western Corridor (TEP's Preferred Alternative)	Central Corridor	Crossover Corridor	No Action Alternative
Land Use *(continued)*				
On the CNF: New permanent disturbance	Estimated 29 acres (12 ha)	Estimated 23 acres (9.3 ha)	Estimated 36 acres (15 ha)	
New temporary disturbance	Estimated 197 acres (79.7 ha)	Estimated 105 acres (42.5 ha)	Estimated 238 acres (96.3 ha)	
	The Western Corridor passes primarily through undeveloped land with few residences (five houses approximately 1,000 ft [305 m] from the centerline west of Sahuarita).	In addition to the residences near the Western Corridor, the Central Corridor centerline passes approximately 1,000 ft [305 m] from eight residences in the vicinity of Tubac, more than the Western or Crossover Corridors. The Central Corridor has the shortest segment on the CNF.	The Crossover Corridor passes primarily through undeveloped land with few residences (same as the Western Corridor, five houses approximately 1,000 ft [305 m] from the centerline west of Sahuarita). The Crossover Corridor passes through an inventoried roadless area (IRA) within Peck Canyon. TEP plans to use helicopter access in this area, and would not build or upgrade any roads in the IRA.	
Compatibility with land use plans	A *Coronado National Forest Land and Resource Management Plan* (Forest Plan) amendment would be required to implement any of the three corridors on the CNF. Outside of national forest land, all corridors are compatible with current land use and land use plans. TEP does not anticipate any ground disturbance in the reserved lands (120 ft [36.6 m] total) along the U.S.-Mexico border.			

Table 2.3–1. Summary Comparison of Potential Environmental Effects of Alternatives *(continued).*

Resource	Western Corridor (TEP's Preferred Alternative)	Central Corridor	Crossover Corridor	No Action Alternative
Recreation	Recreation activities in the vicinity of the proposed project would primarily be impacted by a change in the visual setting of the recreation.			No change in impacts to existing recreational resources. Current recreation activities including hiking, biking, birding, photography, rock climbing, horseback riding, and off-road vehicle use would be expected to continue.
CNF Recreation Opportunity Spectrum (ROS) Areas Crossed	Total 29.5 mi (47.5km) In order from most to least developed: Roaded Natural 1.7 mi (2.7 km) Roaded Modified 7.0 mi (11 km) Semi-Primitive Motorized 21 mi (34 km) Semi-Primitive Non-Motorized none, but passes within 0.25 mi of an area	Total 15.1. mi (24.3 km) In order from most to least developed: Roaded Natural 1.1 mi (1.8 km) Roaded Modified none Semi-Primitive Motorized 14 mi (23 km) Semi-Primitive Non-Motorized none, but passes within 0.25 mi of an area	Total 29.3 mi (47.2 km) In order from most to least developed: Roaded Natural 1.2 mi (1.9 km) Roaded Modified none Semi-Primitive Motorized 25 mi (41 km) Semi-Primitive Non-Motorized 3.3 mi (5.3 km)	
ROS Area Classification	For each ROS area classification USFS has established the limits of acceptable change to certain setting indicators, classifying the changes as "fully compatible or normal," "inconsistent," or "unacceptable." The setting indicators within each area would be impacted as follows: For Access, Social Encounters, Visitor Impacts, and Visitor Management, all alternatives would be compatible with all ROS area classifications. For Facilities and Site Management, most of the length of all three corridors would be unacceptable with all ROS area classifications. For Naturalness and Remoteness, impacts would be as follows:			
	The Western Corridor would have an unacceptable impact on Naturalness where it runs adjacent to Ruby Road for approximately 4 mi (6 km) southwest of the Atascosa Mountains. Most of the Western Corridor would be inconsistent with Remoteness. The length of the Western Corridor on the CNF (29.5 mi [47.5 km], similar to the Crossover Corridor) affects the extent of potential recreation impacts on the CNF.	The Central Corridor would have an unacceptable impact on Naturalness where it crosses Ruby Road, in the same location as the Crossover Corridor. Most of the Central Corridor would be inconsistent with Remoteness. The length of the Central Corridor on the CNF (15.1 mi [24.3 km], approximately half the length of the other alternatives on the CNF) affects the extent of potential recreation impacts on the CNF.	The Crossover Corridor would have an unacceptable impact on Naturalness within Peck Canyon and where it crosses Ruby Road, in the same location as the Central Corridor. The Crossover Corridor would also have a higher impact on Remoteness than the other alternatives, as approximately 3 mi (5 km) of the Crossover Corridor at Peck Canyon would have unacceptable impacts on Remoteness. The length of the Crossover Corridor on the CNF (29.3 mi [47.2 km], similar to the Western Corridor) affects the extent of potential recreation impacts on the CNF.	

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Table 2.3–1. Summary Comparison of Potential Environmental Effects of Alternatives *(continued).*

Resource	Western Corridor (TEP's Preferred Alternative)	Central Corridor	Crossover Corridor	No Action Alternative
Recreation *(continued)* Impacts outside the CNF	Potential impacts on recreation activities would be similar to those within the CNF but would be lower given less recreational use of the Western Corridor outside the CNF.	Potential impacts on recreation activities would be similar to those within the CNF, as the Central Corridor crosses recreational trails where it parallels just outside the CNF boundary for approximately 7 mi (11 km) east of the Tumacacori Mountains.	Potential impacts on recreation activities would be similar to those within the CNF but would be lower given less recreational use of the Crossover Corridor outside the CNF.	
Visual Resources	Visual impacts would occur from the introduction of steel support structures, access roads, and transmission line wires into the landscape. Structures would be primarily 140-ft (43-m) high self-weathering monopoles, similar in color to wood utility poles.			The existing landscape and Scenic Integrity would continue, subject to visual impacts from any potential development in the project area.
Outside the CNF	The Western Corridor passes through areas of existing development near Sahuarita and Nogales, and is shielded from Interstate 19 (I-19) outside these areas by mine tailing piles and natural terrain, passing through primarily undeveloped land. With the exception of a reduction in Scenic Integrity from High to Moderate/Low near the Pima and Santa Cruz county line, the existing Moderate to Low Scenic Integrity would not change.	The Central Corridor passes through areas of existing development near Sahuarita and Nogales, and passes a number of towns along I-19 including Amado, Tubac, and Tumacacori. The Central Corridor would be visible from more residences than Western although some potential views would be blocked by terrain. The existing Moderate to Low Scenic Integrity would not change.	The Crossover Corridor passes through areas of existing development near Sahuarita and Nogales, and is shielded from I-19 outside these areas by mine tailing piles and natural terrain, passing through primarily undeveloped land. With the exception of a reduction in Scenic Integrity from High to Moderate/Low near the Pima and Santa Cruz county line, the existing Moderate to Low Scenic Integrity would not change. (same as Western Corridor)	
Substations	The South Substation expansion would have minimal visual impact given that similar equipment already exists onsite. There would be little visual change introduced by construction of the new Gateway Substation because of existing industrial development in the area.			
On the CNF	Crosses approximately 30 mi (48 km) of mostly Scenic Class 1 and 2 areas, of high public value, and would be most visible from roadways in an approximately 4-mi (6-km) stretch in the immediate foreground of Ruby Road southwest of the Atascosa Mountains.	Crosses approximately 15 mi (24 km) of mostly Scenic Class 2 areas, of high public value but below Scenic Class 1. The primary visual impact of the Central Corridor when viewed from roadways would be at the crossing of Ruby Road, with two structures in the foreground.	Crosses approximately 30 mi (48 km) of mostly Scenic Class 1 and 2 areas, of high public value. The primary visual impact of the Crossover Corridor when viewed from roadways would be at the crossing of Ruby Road, with two structures in the foreground.	

(continues)

Table 2.3–1. Summary Comparison of Potential Environmental Effects of Alternatives *(continued).*

Resource	Western Corridor (TEP's Preferred Alternative)	Central Corridor	Crossover Corridor	No Action Alternative
Visual Resources *(continued)*				
On the CNF *(continued)*	Is mostly blocked by terrain from I-19 and the eastern portion of Ruby Road.	Is mostly blocked by terrain from I-19, and is only visible from Ruby Road at the crossing area.	Is mostly blocked by terrain from I-19, and is only visible from Ruby Road at the crossing area.	
	The existing Scenic Integrity of Peña Blanca Lake Recreation Area and the Pajarita Wilderness would not change.			
Scenic Integrity Changes On the CNF	From: High/Very High To: Moderate/Low 13, 870 acres (5,613 ha)	From: Very High To: Moderate/Low 8,992 acres (3,639 ha)	From: Very High To: Moderate/Low 18, 060 acres (7,307 ha)	
Total Reduced Scenic Integrity On the CNF	From: High To: Very Low 4,641 acres (1,878 ha) 18,511 acres (7,491 ha)	From: High To: Very Low 676 acres (274 ha) 9,668 acres (3,912 ha)	From: High To: Very Low 676 acres (274 ha) 18,736 acres (7,582 ha)	
Biological Resources	Because the proposed project would be in an arid area, where vegetation recovers very slowly, disturbances due to construction could have long-term impacts.			No impacts to biological resources associated with the project.
Vegetation communities potentially disturbed:				
Arizona Upland/Sonoran Desertscrub	Entire Corridor 119 acres (48 ha) CNF 0 acres BLM 0 acres Other Land Ownership 119 acres (48 ha)	Entire Corridor 119 acres (48 ha) CNF 0 acres BLM 0 acres Other Land Ownership 119 acres (48 ha)	Entire Corridor 119 acres (48 ha) CNF 0 acres BLM 0 acres Other Land Ownership 119 acres (48 ha)	
Semidesert grassland	Entire Corridor 165 acres (67 ha) CNF 102 acres (41 ha) BLM 8 acres (3.2 ha) Other Land Ownership 55 acres (22 ha)	Entire Corridor 109 acres (44 ha) CNF 67 acres (27 ha) BLM 8 acres (3.2 ha) Other Land Ownership 34 acres (14 ha)	Entire Corridor 97 acres (39 ha) CNF 66 acres (27 ha) BLM 8 acres (3.2 ha) Other Land Ownership 23 acres (9.3 ha)	
Madrean Evergreen Woodland	Entire Corridor 95 acres (38 ha) CNF 95 acres (38 ha) BLM 0 acres Other Land Ownership 0 acres	Entire Corridor 38 acres (15 ha) CNF 38 acres (15 ha) BLM 0 acres Other Land Ownership 0 acres	Entire Corridor 72 acres (29 ha) CNF 72 acres (29 ha) BLM 0 acres Other Land Ownership 0 acres	

(continues)

Table 2.3–1. Summary Comparison of Potential Environmental Effects of Alternatives *(continued).*

Resource	Western Corridor (TEP's Preferred Alternative)	Central Corridor	Crossover Corridor	No Action Alternative
Biological Resources *(continued)*				
Sonoran Riparian Deciduous Forest	Entire Corridor 0.14 acres (0.06 ha) CNF 0 acres BLM 0 acres Other Land Ownership 0 acres	Entire Corridor 0 acres CNF 0 acres BLM 0 acres Other Land Ownership 0 acres	Entire Corridor 0 acres CNF 0 acres BLM 0 acres Other Land Ownership 0 acres	
Special status species	Both within and outside the CNF, there is a potential to impact habitat during construction of existing native plant communities located within the ROW and areas of new access roads. Biological Assessments (BAs) on federally listed species and reports on USFS Management Indicator Species (MIS) and Migratory Bird Treaty Act (MBTA) species were completed to evaluate impacts to species and their habitats and identify potential adverse effects for special status species that occur, or may occur, within each corridor. The corridors do not cross any federally designated critical habitats for any listed threatened or endangered species. The federally listed endangered Pima pineapple cactus is known to occur in each corridor. Additional species-specific surveys are recommended in some cases.			
Potential Adverse Effects to:	Includes habitat for the following 10 federally listed species: cactus ferruginous pygmy-owl, Chiricahua leopard frog, Gila topminnow, jaguar, lesser long-nosed bat, Mexican gray wolf, Mexican spotted owl, Pima pineapple cactus, Sonora chub, and southwestern willow flycatcher. 74 special status species	Includes habitat for the following 7 federally listed species: cactus ferruginous pygmy-owl, Gila topminnow, jaguar, lesser long-nosed bat, Mexican gray wolf, Mexican spotted owl, and Pima pineapple cactus. 62 special status species	Includes habitat for the following 9 federally listed species: cactus ferruginous pygmy-owl, Chiricahua leopard frog, Gila topminnow, jaguar, lesser long-nosed bat, Mexican gray wolf, Mexican spotted owl, Pima pineapple cactus, and southwestern willow flycatcher. 67 special status species	
Socioeconomics	Socioeconomic impacts would be similar for all corridors. The proposed project would result in the creation of approximately 30 direct (construction) jobs, and approximately 31 indirect (service-related) jobs during construction. No influx of population or stress to community services would be expected because most of the jobs created would be filled by current residents. No adverse socioeconomic impacts would be expected from project operation.			No socioeconomic impacts associated with the project. Current socio- economic trends would continue.

Table 2.3–1. Summary Comparison of Potential Environmental Effects of Alternatives *(continued).*

Resource	Western Corridor (TEP's Preferred Alternative)	Central Corridor	Crossover Corridor	No Action Alternative
Cultural Resources	Potential for land disturbance or loss of cultural resources due to land disturbances (pole locations and access roads). Cultural resource survey of proposed ROW prior to construction would mitigate impacts.			No archaeological and historical sites would be disturbed under this alternative. No additional archaeological surveys or Native American consultation would be undertaken in a systematic study of these areas in the foreseeable future. USFS and BLM would still allow access to public lands, which could result in the discovery and/or the destruction of cultural sites.
	Low density of cultural resource sites expected along a majority of the route.	Higher density of cultural resource sites expected along the Central Corridor segment near the Santa Cruz River.	Low density of cultural resource sites expected along a majority of the route. (same as Western Corridor)	
Native American Consultations	Indian tribal representatives have expressed opposition to all three proposed corridors, but have not (to date) named specific locations of any traditional cultural properties (TCPs) or sacred sites.			
	Several tribes (Tohono O'Odham Nation, Gila River Indian Community, Ak-Chin Indian Community, Salt River Pima Maricopa Indian Community and the Pascua Yaqui Tribe) have stated that they value the landscape through which the Western Corridor passes and have expressed opposition to this corridor.	Several tribes (Ak-Chin Indian Community, Tohono O'Odham Nation, Gila River Indian Community, Salt River Pima Maricopa Indian Community and the Pascua Yaqui Tribe) stated that they would prefer that the project be constructed along the Central Corridor, if it was built at all. They view the Central Corridor as an already-disturbed area. None of the tribes wished to express approval of the project overall when stating this preference. Similar statements favoring the Central Corridor, if any is to be built, were made in January 2003 meetings and a site visit with Tohono O'Odham Nation, Gila River Indian Community, Salt River Pima Maricopa and Ak-Chin Indian Communities.	Passes through portions of the landscape (where common with the Western Corridor) that have been identified as valued by several tribes. Official tribal concerns have not been stated regarding the unique portion of the Crossover Corridor.	

Table 2.3–1. Summary Comparison of Potential Environmental Effects of Alternatives *(continued).*

Resource	Western Corridor (TEP's Preferred Alternative)	Central Corridor	Crossover Corridor	No Action Alternative
Geology and Soils	No impact to geologic resource availability or mine tailings areas expected. The placement of poles and access roads would require some disturbance and removal of near-surface material. (See Land Use for estimates of areas disturbed). Structures on relatively intact shallow bedrock would be installed by rock bolting. Foundations for structures on unconsolidated alluvium probably would require direct embedment poles, requiring excavation of a large pit. Construction in alluvium containing large cobbles would require use of lean-concrete slurry for backfill of the pit because soils with large cobbles are difficult to compact adequately. Potential for ground failure exists in mountainous areas. Slope stability analysis for potential tower locations in mountainous areas would prevent slope failure. Low to moderate seismic risk would be considered in structure design.			No geologic or soils impacts associated with the project.
	There are limited areas of alluvium where direct embedment poles would be required, but steep terrain in the southern portion of the corridor increases potential for ground failure.	There are extensive areas of cobbly alluvium where direct embedment poles would be required, but relatively low relief reduces potential for ground failure.	There are limited areas of alluvium where direct embedment poles would be required, but rock bolting probably would be feasible in the unique portion of the Crossover Corridor. However, steep terrain in this section increases potential for ground failure.	
New roads on unconsolidated alluvium On the CNF	Road construction on unconsolidated alluvium could cause soil erosion and compaction.			
	Estimated 9 miles (15 km) of roads on unconsolidated alluvium.	Estimated 12 miles (19 km) of roads on unconsolidated alluvium.	Estimated 10 miles (16 km) of roads on unconsolidated alluvium.	
Prime farmland soils	All three proposed corridors cross soils considered to be prime farmland when irrigated. These soils would be spanned where feasible, and the total prime farmland soil converted to pole foundations would be less than 0.25 acres (0.1 ha).			
Water Resources	No adverse impacts to groundwater or limited surface water resources. Construction activity that takes place within a jurisdictional water requires a Section 404 Permit from the U.S. Army Corps of Engineers (USACE); TEP would complete consultation with USACE for an applicability determination upon final selection of an alternative. For all alternatives, an estimated 1 acre-foot (1,233.5 cubic meter) of groundwater would be used during construction.			No water resource impacts associated with the project. Current water resource patterns would continue.
Floodplain Area Disturbed	Estimated 1.97 acres (0.80 ha) of 100-year floodplain, including the expansion of the South Substation, pole construction and laydown areas, and access roads.	Estimated 1.58 acres (0.64 ha) of 100-year floodplain, including the expansion of the South Substation, pole construction and laydown areas, and access roads.	Estimated 1.97 acres (0.80 ha) of 100-year floodplain including, the expansion of the South Substation, pole construction and laydown areas, and access roads. (same as Western Corridor).	

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Table 2.3–1. Summary Comparison of Potential Environmental Effects of Alternatives *(continued).*

Resource	Western Corridor (TEP's Preferred Alternative)	Central Corridor	Crossover Corridor	No Action Alternative
Water Resources *(continued)*				
Large washes crossed	15	14	15	
Structures within a wash	1 in Sopori Wash, outside the normal flow line.	1 in Sopori Wash, outside the normal flow line.	1 in Sopori Wash, outside the normal flow line. Also 2 in the bottom of Peck Canyon	
Air Quality				No impacts to air resources associated with the project. Current air quality trends would continue. Nogales, Arizona, within the proposed project vicinity, is not in attainment with the EPA's National Ambient Air Quality Standard (NAAQS) for PM_{10}.
Construction	Temporary, localized fugitive dust emission impacts from construction activities would occur. A conformity review of the proposed project (required under Section 176[c] of the *Clean Air Act*) was conducted in accordance with EPA and DOE guidance. The review shows that the maximum year of construction project emissions of PM_{10} and CO for each alternative would be below the regulatory thresholds and below the regionally significant action level for carbon monoxide (CO). Specific results are as follows:			
PM_{10} in Nogales Non-attainment area	62.1 tons per year (tpy) (56.5 metric tpy[mtpy])	72.7 tpy (66.2 mtpy)	72.7 tpy (66.2 mtpy)	No PM_{10} emissions associated with the proposed project.
PM_{10} regulatory threshold	100 tpy (91 mtpy)	100 tpy (91 mtpy)	100 tpy (91 mtpy)	
PM_{10} regionally significant action level	None	None	None	
CO in Tucson Maintenance area	24.2 tpy (21.9 mtpy)	24.2 tpy (21.9 mtpy)	24.2 tpy (21.9 mtpy)	No CO emissions associated with the proposed project.
CO regulatory threshold	100 tpy (91 mtpy)	100 tpy (91 mtpy)	100 tpy (91 mtpy)	

(continues)

Table 2.3–1. Summary Comparison of Potential Environmental Effects of Alternatives *(continued).*

Resource	Western Corridor (TEP's Preferred Alternative)	Central Corridor	Crossover Corridor	No Action Alternative
Air Quality *(continued)*				
CO regionally significant action level	11,866 tpy (10,765 mtpy)	11,866 tpy (10,765 mtpy)	11,866 tpy (10,765 mtpy)	
Operation	Impacts from operation and maintenance activities would be limited to dust from occasional access by TEP. Corona effects would generate less than 1 part per billion of ozone.			
Noise				No noise impacts would be associated with the project. Current noise patterns would continue, with background noise levels ranging from 30 to 60 decibels, depending on proximity to development and roads.
Construction	The primary effect of noise would be annoyance to the residents nearest to the ROW (see Land Use above) during construction and would be short-term.			
	Temporary construction noise increases would primarily impact residents in Sahuarita and Nogales and recreationalists.	Temporary construction noise increases would primarily impact residents in Sahuarita, Amado, Tubac, Tumacacori, and Nogales, and recreationalists.	Temporary construction noise increases would primarily impact residents in Sahuarita and Nogales and recreationalists (same as Western Corridor).	
Operation	Long-term noise from corona effect on transmission lines would generally be lost in background noise (ranging from 30 to 60 decibels, depending on proximity to residential areas and roads). Gateway and South Substations operational noise would be near background levels for the nearest receptors. (There are no residences within 0.5 mi [0.8 km] of either substation).			
Infrastructure	The proposed project would increase electric transmission facilities, but would not otherwise affect existing infrastructure. Minimal municipal solid waste generated during construction and operation would be taken to appropriate landfill facilities. No hazardous waste would be generated from substation operation. Powerline reliability would increase.			No change to existing infrastructure. The unreliability of electricity in Nogales, Arizona would continue unless other transmission lines or power plants are built in the Nogales area.
Human Health and Environment	EMF exposure at the nearest residences, schools, and commercial establishments would be well below 0.8 milligauss, the average daily exposure to maximum magnetic fields from some common household appliances. EMF exposure at the nearest residences (listed previously under Land Use) would be less than 10 percent of EMF exposure from common household appliances, and would decrease further at the nearest schools and commercial establishments. No health effects would be expected from this exposure. Corona effects (audible noise, radio and television interference, visible light, and photochemical reactions) would be minimal and would be mitigated using proper line design.			No EMF effects associated with the project. EMF exposure from existing transmission lines and household appliances would continue.
Environmental Justice	No disproportionately high and adverse impact to the minority or low-income populations.			Existing conditions would continue.

Table 2.3–1. Summary Comparison of Potential Environmental Effects of Alternatives *(continued).*

Resource	Western Corridor (TEP's Preferred Alternative)	Central Corridor	Crossover Corridor	No Action Alternative
Transportation	Short-term traffic disruptions on major roads such as Ruby Road could occur during construction. Where no access currently exists, new access ways would be required in coordination with land owners and managers, as follows:			Current traffic patterns and growth of wildcat (unauthorized) roads on the CNF would be expected to continue.
New roads (estimated)	Not determined. Existing roads would be used for construction and maintenance access to the extent possible.	Same as Western, except that fewer new access roads would be required because a longer segment follows an existing utility (gas pipeline) ROW.	Same as Western.	
On CNF	20 mi (32 km)	14 mi (22 km)	21 mi (33 km)	
On BLM	0.9 mi (1.4 km)	Same as Western.	Same as Western.	
Road Repairs and Upgrades	Spot repairs would be made to existing roads as needed.	Same as Western, except that extensive upgrades to existing pipeline access roads would be required.	Same as Western.	
On CNF	An estimated 95 locations on existing roads would require minor repairs or improvements.	An estimated 15 locations on existing roads would require minor repairs or improvements.	An estimated 98 locations on existing roads would require minor repairs or improvements.	
Helicopter Use	Helicopters would be used for stringing conductors, but are not expected to be used to bring in structures.	Same as Western.	Helicopters would be used for stringing conductors and to bring an estimated 20 to 25 structures to the Peck Canyon area.	
Traffic	Short-term traffic disruptions could occur during construction, particularly where a corridor crosses a major road such as Arivaca Road.			
Permanent Changes to Road System	Roads not required for long-term maintenance would be closed in coordination with land managers and owners.	Same as Western.	Same as Western.	
On CNF	No net increase in road density. Roads not required for long-term maintenance would be closed, and the sites would be restored. For every mile of new road required for operation and maintenance of the project, TEP would close a mile of existing road. Roads required to remain open for project maintenance would be administratively closed, with restricted access.	Same as Western.	Same as Western.	

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Table 2.3–1. Summary Comparison of Potential Environmental Effects of Alternatives *(continued).*

Resource	Western Corridor (TEP's Preferred Alternative)	Central Corridor	Crossover Corridor	No Action Alternative
Transportation *(continued)*				
On BLM	0.9 mi (1.4 km) of additional roads	Same as Western	Same as Western	

BA = Biological Assessment
BLM = Bureau of Land Management
CO = Carbon monoxide
CNF = Coronado National Forest
EMF = Electric and magnetic field
EPNG = El Paso Natural Gas Company
EPA = U.S. Environmental Protection Agency
ESA = *Endangered Species Act*
IRA = inventoried roadless area
MBTA = *Migratory Bird Treaty Act*
MIS = Management Indicator Species
PM_{10} = particulate matter with an aerodynamic diameter less than or equal to 10 microns
ROS = Recreation Opportunity Spectrum
ROW = right-of-way
TCP = Traditional Cultural Property
TEP = Tucson Electric Power Company
USFS = U.S. Forest Service